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ABSTRACT

Described is a project involving 37 severely emotionally disturbed, behavior disordered, or autistic children (4-16 years old) which focused on the provision of short term, intensive special educational class placement for children who otherwise would have been extruded from regular school programs into hospital or residential (psychiatric) school settings. Program areas covered by the report include goals and objectives, behavioral objectives, academic emphasis, reinforcement schema, population characteristics, and cognitive orientation. Cited are findings which indicate that the project's original purpose (to prevent extrusion of children from their homes and communities) can be achieved with a cost effective model that succeeds in the management of children with severe emotional or behavioral disorders, sometimes complicated by other handicaps. Also provided are the case history of a child included in the project, appended material on Ss test results, and sample data collection sheets. (Author/SB)

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EDUCATIONAL REMEDIATION OF AUTISM AND ENVIRONMENTAL DISORDERS

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PROJECT SUMMARY

This project was designed under the federal developer/demonstrator model to pilot a program permitting severely emotionally disturbed, behavior disordered, and autistic children to be educationally remediated in local educational agency public school programs. The focus of the program was to provide short term, intensive special educational class placement for children who otherwise would have been extruded from regular school programs into hospital or residential (psychiatric) school settings.

Goals and Objectives:

1. To analyze and make specific modification of the maladaptive behavioral exchanges of severely disturbed children in a self-contained, intensive special education class setting.
2. To train parents and other family members to analyze and modify the exchanges each of them has with the "disturbed" child.
3. To pilot a training model for teachers and other school specialists in working with the child's disability in home and school environments.

Context:

The project was designed to be a direct service agent to children with negative behavioral exchanges within their environment. The project served the second purpose of being a liaison between the community and family with regard to the child's behavior. Modification of exchanges occurred through project intervention in all spheres of the child's total environment and with all change agents.

Program Description:

The project dealt with children at all age levels between four and sixteen. While the four classrooms were essentially multi-age rooms, children were grouped within a three-year span of chronological age, as consistent with the rules and regulations governing the administration of special education in the State of Illinois. The children were also grouped within these classes by ability for group and individual curriculum activities. The curriculum was individually geared to each child's academic and behavioral needs through student based behavioral objectives, derived from the results of interdisciplinary team diagnosis and achievement testing. The objectives were used to measure performance and gain in developmental levels. Children attended the program from 9:00 a.m. to 2:30 p.m. daily. Parents were counselled regarding their child's behavior both at home and school.

EC082992

Costs:

Per pupil costs of the project derived from the toal for both Title III, ESEA and local participating funding was $6000 per pupil. This high level was due to the number of supportive personnel and services in proportion to the low number of children within project classrooms. These same services may be supplied on a local educational agency level for one third of this cost or less, once the program has been adopted by local school district, and their regular support personnel are available to it.

Process:

Children referred to the project by their local educational agency (LEA) were first staffed with LEA personnel by at least one member of the project's interdisciplinary diagnostic team. The two basic criteria for admission to the program were diagnosis of the child as suffering from a severe emotional or behavioral disorder as a primary presenting behavior and the willingness and ability of the parents to cooperate regularly in project efforts (generally at least weekly counselling contacts) to assist them in establishing positive behavioral exchanges with their child. This inital asssessment was conducted by a psychoeducational team within the project consisting of a child psychiatrist, pediatrician, psychologist, home intervention worker (mental health specialist), speech therapist and special education prescriptive teacher.

Differential diagnosis was at times deferred until a child was re-staffed after a period of four to nine weeks in the project because of the profound degree of language disorder, withdrawal, or bizarre behaviors presented, and which required longer term observation and assessment.

Both as part of the inital interdisciplinary diagnostic process, and the classroom teacher's prescriptive work with the child during the first two weeks of placement, various forms of achievement testing, affective measurement and observational ratings of behavior were obtained again during the last two weeks of a child's placement to provide post-program data on a child's progress while in the project.

As data was obtained by the classroom teacher from the inital diagnositic process, achievement testing and observational ratings of behavior, it was used as the basis for academic and social, student based behavioral objectives. The child was applied normatively in formal and informal contingency systems for such rewards as the use of privilege areas of curriculum or recreational activity, points on a token reward system, individual time with the teacher, and other activities of individual value for each child.

In both curriculum activites and behavior management the emphasis was consistently placed by all project staff members on a child's opportunities to make positive choices. At least three alternatives were usually available. Only positive reinforcement was utilized for individual behavior. Group behaviors were subject to some negative reinforcement such as temporary loss of free time privileges, but such negative reinforcement was applied as the result of student group process led by the teacher or other staff person.

As the school year progressed and teachers developed skills in conducting group processes whereby positive peer pressure was applied to individual and group behavior (even when negative contingencies were applied as the result), it became most practical to have all such group sessions led by the classroom teacher and instructional aide for that room. On three occasions, when the group process dealt with difficult areas of public school regulations, the project director assisted in leading the group session.

Classroom rules for behavior which did not involve danger to self or others were developed by the students in groups led by the classroom teacher. The teacher or other staff member who led classroom discussions permitted the group to try out rules it had developed when there was a consensus within the group that the alternative was reasonable.

Behavioral Objectives:

Behavioral objectives were reviewed by the classroom teachers at least once per month and revised as appropriate. When an objective was achieved it was replaced by a goal of a higher level of behavior or academic production. Academic materials utilized in each child's home district were integrated into the program through homework assignments taken from these texts and materials. Where possible, individual work periods within the project's program day also drew upon these materials. An intensive emphasis was placed upon one hour of homework assignments per night for any child with sufficient ability to cope with grade level instructional materials consistent with chronological age. Positive peer pressure in weekly group discussions of approaches to home assignments, and restriction of free time to work toward completion of home assignments were used to reinforce this element of educational program.

Academic Emphasis:

Academic curriculum content focused upon the core areas of reading, mathematics, language arts and science. Programmed and sequential media and curriculum packages were used as appropriate to individual student need. Group instructional and discussion periods were a part of all students' curriculum, according to ability and interest. Art, career education for junior high school age students, limited industrial arts activities, and adaptive physical education were also provided. Field trips in science and outdoor education were provided to all students. Other, esentially recreational/social trips were earned by the students through group positive behavior and academic production.

Reinforcement Schema:

A key function in the rapid involvement of the child in the total remediation process was found to be immediate reinforcement during his initial adjustment to placement in the project. For children above the pre-school level, this consisted of a competitive point system. Points were given on the chalkboard next to the child's name for positive social behavior and academic production. Points were taken away for negative reinforcement of a few very specific disruptive behaviors following a schema developed by the students in the group sessions described above. Points were awarded on an intermittent schedule of reinforcement. They could be used by the student throughout the week to purchase special free time activities, or saved until Friday afternoons when items such as books, toys, records, candy bars, and other such inexpensive items were offered within each classroom in competitive auction. Unused points could be carried over to the following week. In this manner the child was graduated to longer intervals between reinforcements. Points were never applied to behavior outside the school boundaries (e.g. on the school bus) except for completion of homework assignments.

A detailed teacher training package on this system of non-operant reinforcement is available from the project.

Preparation for Reintegration:

When a child's academic performance showed that he had become engaged in the remedial process, and disruptive or bizarre behaviors had virtually ceased to occur, the child was taken off the point system, and received only verbal, tactile and academic rewards of free time earned by completion of work or curriculum choices involving novel media. After two to three weeks of continued achievement and good behavior, the classroom teacher recommended the child for staffing with local district personnel. The purpose of this staffing was to develop a plan of placement back into existing programs within that child's local educational agency.

Nature of the Population:

The population for this program was comprised of children with measured IQ's ranging from 50 to 129, with most of the scores falling in the Dull Normal and Average ranges according to Wechsler's norms. The extremely low score of 50 reflects a single child later diagnosed as Educably Mentally Handicapped, after nine weeks of diagnostic placement in the program. As expected, Performance IQ's were significantly higher than Verbal IQ's in most instances, which is consistent with the trends in the published literature for emotionally disturbed, behavior disordered, and severe reading disability children. Patterns of significance in achievement test scores reinforced these interpretations. This population of children was also characterized by the presence of multiple handicaps -- significant neurological handicap as medically diagnosed. The disproportionate number of boys over girls (N=34, N=5, respectively) was also consistent with the trends in published literature, through this effect on referrals in also seen as an artifact of socio-cultural mores and nationwide school practices.

Cognitive Orientation of the Project:

Serious disorders in children may be viewed as failure to develop appropriate cognitive and emotional response systems for chronological age attained, and as regressive behavior resulting from emotional trauma/environmental distortions of the patterns of stress applied to the child by significant agents. The result is the formation of negative patterns of response interactions (behavioral exchanges) with these persons or forces. The cognitive schema for location of a child's functioning along developmental baselines is presented next:

COGNITIVE-DEVELOPMENTAL SCHEMA

Normal Developmental Sequence

CA:		Psychiatric Disturbance Regressive Sequence
2	Oral Period	Schizophrenia
4	Anal Period	Biphasic Affective Disturbances
7		Obsessive Personality Hysteric Personality
10	Post Oedipal (Latency) Period	Character Disorders
13	Pre-Adolescent Latency Period	Behavior Disorders
21	Adolescent Strivings	Adolescent Adjustment Reactions
	Post-Adolescent, Established Coping Behaviors	Existential Crisis

It may be seen that "normal" existential crisis in the life of an individual, to which he appropriately responds, correlate directly with his learning of effective coping behaviors and positive patterns of behavioral exchanges within the environment. The following frequency chart displays the level of disturbance of children in this project upon entrance and at termination of attendance. The numerical values were assigned to each case by the project's consulting child psychiatrist, based on descriptors and qualifiers used in her written diagnostic impressions at the beginning and end of the project. The numerical values ascend in three steps within each affective area, and represent mild, moderate, and severe levles of dysfunction, repectively. Number 1 indicates good adjustment and Number 9 total dysfunction.

PSYCHIATRIC RATINGS

PRE-PROGRAM

Affective Areas of Diagnosis

Psychotic — Neurotic — Normal/Average

New	Primary Neurological Disorder	9	8	7	6	5	4	3	2	1

POST-PROGRAM

Termination of project attendance occurred at 9, 18, 27, or 36-week intervals. All children showed significant improvement on this developmental baseline, with two exceptions. Longitudinal observation of those two children completed after placement in the program revealed a combination of severe psychopathology and inability of the family to cooperate, which could properly be handled only a psychiatric hospital setting, to which they were referred.

Results and Discussion:

Dependent measures are displayed in this report as change scores for individual students in addition to findings derived from group comparisons. Table 1 contains the change scores on selected measures for individual students, and Table 2 contains the results of pre-program/post-program comparisons with either the non-independent t-test or the sign test. The selected measures are those which were found to be statistically significant (i.e., p. 05, two-tailed) in the group comparisons. For detail of the results of the group comparisons, please see Appendix A, which also provides descriptive statistics for all students in the population.

TABLE 1

CHANGE SCORES FOR INDIVIDUAL STUDENTS

	PEABODY INDIVIDUAL ACHIEVEMENT TEST				PARENTS' BURK RATINGS *				TEACHERS' BURK RATINGS *										
N	Reading Recognition	Spelling	General Knowledge	Total	Poor Ego Strength	Poor Coordination	Poor Academics	Poor Attention	Poor Ego Strength	Poor Coordination	Poor Intellectuality	Poor Attention	Poor Impulse Control	Poor Sense of Identity	Poor Anger Control	Excessive Sense of Persecution	Excessive Aggressiveness	Excessive Resistance	Poor Social Conformity
1	+17	+6	+5	+17	-3	0	-3	+2	+7	+2	-1	-2	-4	+1	+1	-1	+3	+1	+1
2	-2	+3	+4	+5	-3	0	-4	+1	-2	+1	-5	-7	-9	-4	-4	+2	+3	+3	-7
3	+19	--	--	--	--	--	--	--	-8	-8	+1	-5	-3	-11	-7	-8	-14	-9	-8
4	+9	-5	0	+6	-2	-1	-1	-2	-4	-4	-9	-4	-3	-4	-2	+2	-5	-5	-4
5	+2	+7	+12	+10	-4	-3	-2	-2	+1	0	-10	+6	+1	0	0	0	+1	+1	0
6	+3	+14	+18	-2	+2	-2	-1	-1	-9	-4	-12	-6	-9	-4	-9	-1	-5	-9	-5
7	+4	-16	0	0	+1	+2	-1	-4	-4	-4	0	-4	-4	-2	-1	-6	-1	-3	-3
8	--	--	--	--	-1	0	-1	-3	+5	-1	-3	0	0	-2	0	0	0	-1	+2
9	--	--	--	--	-1	-1	-11	-1	+3	-6	-2	0	-1	+4	-1	-2	+3	-4	-3
10	--	--	--	--	+1	+1	-3	-1	+3	-2	+2	-11	-7	-2	-1	-2	-2	-4	-1
11	+9	--	+12	+11	-6	-1	-6	+1	-5	-8	-8	-9	-8	-5	-6	-6	-5	-7	-9
12	--	--	--	--	0	-1	+3	+4	+4	+1	+3	+2	+1	-1	-2	-1	-4	+1	+2
13	0	-8	-6	-5	+4	-1	-5	-4	-6	-2	-7	-8	-6	-8	-3	-2	-8	-13	-17
14	+13	+1	+2	+4	-8	+4	-13	-6	-9	-2	-6	-6	-1	-5	-6	-4	-10	-6	-6
15	--	--	--	--	0	0	0	0	-1	-7	-11	-8	-3	0	-8	0	+5	-5	-7
16	+3	+9	+7	+14	0	-3	-4	0	-1	+1	-6	-3	-4	-7	-9	-6	-2	-9	-5
17	--	--	--	--	+1	0	-3	-2	0	-1	+1	+2	-2	+2	-1	-4	-1	+1	0
18	--	--	--	--	-4	-1	-1	0	-1	+2	+1	-2	+4	+3	+4	0	-2	+6	+2
19	0	--	--	--	-3	-6	-2	-1	-9	-2	-4	-1	-4	0	-8	-11	-5	0	0
20	+4	+3	+7	+2	-3	0	0	-1	0	+2	-3	-1	-9	-2	-8	0	-12	-6	-5
21	-6	--	--	--	0	-5	0	-1	+1	0	-2	+2	+5	+2	+4	-5	-2	+1	-2
22	0	-6	-10	-2	-7	-2	-8	-6	+2	-1	0	-1	+1	-3	-5	-7	-11	-4	-3
23	--	--	--	--	--	--	--	--	-8	-2	+2	+7	-2	0	+2	0	0	+5	0
24	+12	+19	-10	-16	--	--	--	--	-5	-5	-4	-8	-8	-6	-7	-6	-13	-7	-12
25	--	--	--	--	--	--	--	--	+2	+1	+2	+1	+5	-1	-2	+4	-5	-1	+3
26	+6	+2	+4	--	--	--	--	--	+4	+5	+4	+5	+2	+2	+5	+4	+5	+4	+3
27	+2	-11	+10	+4	--	--	--	--	-5	-1	0	-5	-3	-4	-1	-2	-3	-3	-2
28	-6	+7	-5	-7	--	--	--	--	-7	-5	-1	-5	-4	-1	-6	-5	-4	-3	-6
29	+7	+6	+8	+5	--	--	--	--	-1	0	-1	-3	-4	-2	-6	0	-5	-6	-5
30	+17	-4	+10	+11	--	--	--	--	+1	+2	+2	+7	+5	0	+7	0	+3	+2	-1
31	--	--	--	--	--	--	--	--	NEW STUDENT DATA NOT AVAILABLE										
32	--	--	--	--	--	--	--	--	0	-1	+3	-2	-1	-5	-2	0	+1	-2	+1
33	--	--	--	--	--	--	--	--	-3	-1	-1	-3	-3	-5	-10	-5	-4	-10	-6
34	--	--	--	--	--	--	--	--	NEW STUDENT DATA NOT AVAILABLE										
35	--	--	--	--	--	--	--	--	-7	+2	-4	-3	0	+1	0	+13	-2	+4	0
36	+4	+13	+22	+13	--	--	--	--	0	0	+2	+2	+2	-2	-5	0	-2	-2	-2
37	--	--	--	--	--	--	--	--	NEW STUDENT DATA NO AVAILABLE										
N=	22	18	19	18	21	21	21	21	34	34	34	34	34	34	34	34	34	34	34

* = Burk's Behavior Rating Scale (Please note that because subscales are expressed in negative terms, a negative score indicates change in a positive behavioral direction)

Group Data

Significant Variables from Group Comparisons

Pre-Test Minus Post-Test
Burks' Behavior Rating Scales Completed by Parents

a.	Poor Ego Strength	t = 2.59	p = .018
b.	Poor Coordination	t = 2.09	p = .049
c.	Poor Academics	t = 3.79	p = .001
d.	Poor Attention	t = 2.23	p = .037

Pre-Test Minus Post-Test
Burks' Behavior Rating Scales Completed by Teachers

a.	Poor Ego Strength	t = 2.39	p = .023
b.	Poor Coordination	t = 2.65	p = .012
c.	Poor Intellectuality	t = 2.13	p = .041
d.	Poor Attention	t = 2.83	p = .008
e.	Poor Impulse Control	t = 3.22	p = .003
f.	Poor Sense of Identity	t = 3.68	p = .001
g.	Poor Anger Control	t = 3.82	p = .001
h.	Excessive Sense of Persecution	t = 2.35	p = .025
i.	Excessive Aggressiveness	t = 3.58	p = .001
j.	Excessive Resistance	t = 3.29	p = .002
k.	Poor Social Conformity	t = 3.90	p = .001

(Note: a positive t in this table indicates a decrease in negative behavior; probabilities are for a two-tailed test)

Pre-Test Minus Post-Test
Peabody Individual Achievement Test
Gain in Months - Age Equivalent Scores

a.	Total test	Sign Test	.0133
b.	Reading Recognition	Sign Test	.0392
c.	Spelling	Sign Test	.0466
d.	General Knowledge	Sign Test	.0133

Pre-Test Minus Post-Test
Affective and Observational Group Data

a.	Internalization-Externalization (locus of behavioral control)	t = 2.45	p = .026
b.	General Classroom Rating (by teachers)	t = 2.13	p = .050
c.	Listening to Others	t = 3.00	p = .013

The N's in the foregoing Tables 1 and 2 vary from the total N for the project because of several factors. Some children were differentially diagnosed as in need of other placement because of a primary handicap other than emotional disturbance or behavior disorder. They were referred to different services in too short a time span to obtain post test data. Other children were not testable over all of the measures because of age or emotional factors which prevent their participation. Three children were new to the project, and only pre-test data was obtained on them at the time of compilation of this report. Seven children in the youngest age group were below age norms for the standardized measures employed in this study.

The data in the above tables shows that a disproportionate number of students improved on various achievement, observational, and affective indicators. Group data (see Appendix A) utilizing t-tests of significance yielded results which, in many cases, were also significant and which reflected the overall positive shift in behavior. That shift was also displayed earlier in the frequency chart of psychiatric findings. This consistency in a positive direction of change at significant levels between group and individual data and descriptive indicators supports the interpretation of the project's overall effectiveness as a change agent for students. This is an especially significant finding given the extreme levels of emotional and academic deficits reflected in the population.

The overall pattern of data suggests that changes in the classroom behavior, especially attentive responses, occurred and that change in achievement measures reflect the childrens' improved classroom behavior. These changes are also reflected by the several significant changes on the teachers' Burks'Behavior Scale ratings, the increased frequency of intervals in which listening to other students was observed, and the significant improvement in the general classroom ratings of behavior. These results suggest that the lack of marked change on the behavioral observation measures most likely reflects weaknesses of the measures on which change was non-significant. Reading comprehension and arithmetic are those areas which are most sensitive to the effects of interfering anxiety and require a high level of integrated cognitive functioning. Thus they may tend to show remedial gains more slowly.

Further consideration of the detailed data by project staff revealed several other implications of some import. Older children who have been functioning at a neurotic level over a number of years tend to remediate more slowly than children who are younger, or in cases where the onset of the problem has been more traumatic and recent. School districts tend to rapidly extrude the seriously disturbed young child (age 5-7) into inpatient settings. The older child who has been a chronic mild to moderate behavioral offender tends to be handled in a variety of alternative educational placements, such as learning disabilities programs or vocational programs, until he is old enough to drop out of school on his own intitative, or until his behavior escalates to the point where he is expelled. It would also be expected that many such students "squeak by" these extreme alternatives until they finish high school with a poor academic and disciplinary record. They then frequently have nowhere to go in the competitive job market.

Children with autistic behavior and symptoms were found to have been placed in longer term residental care with minimal educational programs at an early age, from which it is exceedingly difficult to reintegrate them into their communities.

Yet preliminary observational data from this project suggests that autistic children may be remediable even in programs with control variables such as number of other children with whom to deal, noise, visual distractions, and other like stimuli.

The roles parents play cannot be minimized in treating any form of disturbed behavior in children. Many forms of parent counselling may be used effectively for the long or short term. A key element in rapid remediation achieved by this project consisted of coaching parental behavior which would elicit positive behavioral responses from the child. Parents needed and responded favorably to being given direct management techniques which they could use with their children. A complete package on the coaching process is available from the project.

Case Example:

In order to give this data more meaning to the reader, the following case history summary illustrates the program parameters of this project:

Paul (not his real name), age 13 years 10 months at time of referral to the project, had been the subject of psychiatric evaluations at two public and one private facility in his community. He had been found to have minimal brain dysfunction (manifested in hyperactivity), a "slow wave abnormality on the left temporal area of the brain" in a electroencephalographic study, and an impairment in auditory perception (labeled a learning disability). His hyperactivity, high level of distractibility, and low frustration tolerance were interpreted as evidence of subcortical dysfunction. There was also mild gross motor impairment and general imbalance. These conclusions had been reached by all previous evaluators, without reported testing for emotional disturbance. The child's IQ was 127.

Paul's behavior in school was characterized by frequent swearing, walking from the room, yelling, screaming, crying, and other irrational outbursts. His behavior at home was similar. His mother had borne him out of wedlock and he spent many of his early years with surrogate parents, friends of the mother. His mother married for the first time when Paul was 8 years old. Her interactions with child and stepfather were similar. Their response to her lack of consistent warmth and involvement was to "walk out" of situations in which she was upset, and leave her deal with her feelings alone. The stepfather had adopted the boy and wanted to be close to him, but could not manage his behavior because of the mother's inconsistent support of his role. Marital difficulties arose from her general ambivalence, resulting passive-aggressive behavior, and her disinterest in sexual relations despite a history of extensive promiscuity. One younger sibling, age five, was presenting milder behavior problems in the home, in competition with father and brother for mother's attention.

Interdisciplinary diagnostic evaluation by project staff revealed a chronically anxious and depressed boy who responded in an impulsive manner and at a pre-psychotic level of functioning to the least stress from peers or adults. He was capable of extreme impulsive aggression at such times.

Paul spent one semester in a project classroom. He was maintained on medication only for his hyperactivity. All other problems were remediated through

behavioral controls. The point system in the classroom, coupled with positive peer pressure and individual contracts for student behavior, were quite productive. The parents were seen in weekly counsling by project staff, and were coached to provide clearer responsibilites and rewards for good behavior at home. The adoptive stepfather was especially good at utilizing these contingency contracts.

Paul returned to a regular junior high school program in his home district for the second semester. He functioned satisfactorily upon reintegration except for a brief period in mid-semester during which the mother had allowed medication for hyperactivity to run out, causing him to behave progressivley more impulsively and leading to aggressive contacts with peers and a three-day suspension from school. Renewed marital stress between the parents at this time made inattentive to his need for clear limits and positive reinforcement. His mother had once again begun to verbally blame this child for domestic difficulties of which he was really the victim.

Two parent counseling sessions were held to coach them in re-establishing clear limits and rewards. A consultation was held with the boy's physician regarding his need for medication. A school staffing was held which involved the parents. It revealed a real interest and liking for Paul by his team of teachers, and it was possible to adjust his classroom schedule to permit easier transitions between difficult academic areas, removing some of the stress in the school setting.

Upon termination of the renewed coaching efforts one month prior to the end of school, Paul's school and home adjustments were again satisfactory. His parents were in process of referral back to a community social work agency for longer term supportive counseling to maintain the gains that had been made.

This example was chosen because Paul was the first student returned to regular classes in the home district, and it reflects the degree of relative success of this short-term remedial effort. In all cases the project was successful in preventing the extrusion of children into more expensive residential or psychiatric settings which would have disrupted their relationships with home and community, and for all practical purposes, halted their educational progress.

Comparative Cost Statistics:

COMPARABLE PATIENT/STUDENT COSTS FOR RESIDENTIAL CARE

	Facility	Monthly	Yearly
**	Mercy Center Adolescent Psychiatric Unit Aurora, Illinois	$4,200	($140/day)
*	Ferry Hall School Lake Forest, Illinois	465	$4,650
**	Brown Schools Texas	1,000 - 1,500	
**	Park Ridge School for Girls Park Ridge, Illinois	1,137	11,368
**	Devereaux Schools	1,000 -	
*	Singer Zone Center, Rockford, Illinois State Department of Mental Health	3,270	($109/day)

The cost figures presented above represent a 10-month basis for annual program, and involve additional charges for summer programs.
* indicates residential charges only
** indicates residential and educational charges combined

Note: Illinois School Code requires an LEA to pay up to $2,000 tuition in addition to the LEA's administrative and transportation costs, to private facilities providing appropriate educational services in settings which the LEA cannot offer.

To assess whether the $6000 per pupil annual cost of the present project is a realistic expenditure, one must consider the relative cost of other programs available, as reflected in the above table. At the time of referral to the project, all of the students were at the point of extrusion from home, school, and community. The monthly tuition cost for the project was $631, including counseling services provided to families. The average facility cost per student reflected in the table above is $1928 per month, yet many of those facilities are not able to provide intensive educational program as part of that expenditure. Thus it may be seen that this project has demonstrated an effective way to treat children with severe disabilities, and their families, at substantiallly less dollar cost, without disrupting family or the educational process.

Summary:

The data presented here, along with the attached descriptive and group data, demonstrates that the project's original purpose -- to prevent extrusion of children from their homes and communities -- can be achieved with a cost-effective model that succeeds in the management of children with severe emotional or behavioral disorders, somethimes complicated by other handicaps. This result was achieved at a cost of less than half the average institutional or residential cost within the area served by the project.

The goals of successfully initiating a remediation process of a child's negative behavioral exchanges, and coaching parents and other family members to do so, were realized by the project. The third goal of developing a complete training model to be delivered to teachers and other school specialists proved too ambitious for a single year, but subsequent program proposals have been derived from the need for further validation and identification of effective techniques. Specific measurement of consultation and training skills necessary for local district management of severely disturbed children will be the result.

Demonstration/training packages developed by this project are available. The packages are:

1. Therapeutic management of tantrums; *
2. The use of token reinforcement in the classroom;
3. Coaching positive behavioral exchanges; and
4. The crisis interview.

*indicates a videotape demonstration with accompanying written materials (½" black and white videotape reel, playable only on Sony equipment).

* * * * * *

On July 24, 1975 this project was approved by the Dissemination Review Panel of the United States Office of Education for adoption by other educational agencies as a validated project.

APPENDIX A

Research Hypotheses:

Hypothesis 1: Pre-test scores on the Burks' Behavior Rating Scale, Manifest Anxiety Scale, and all off-task observational ratings will be greater than post-test scores.

Hypothesis 2: Pre-test scores from the Peabody Individual Achievement Test, the Self-Esteem Inventory, the rating of general classroom behavior (by teachers), and all on-task observational ratings will be less than post-test scores on the same measures.

Null Hypothesis: There will be no significant correlations between any of the variable included in the measures for this project.

Data Analysis:

1. The distributions of all measures obtained in this study were described statistically. This included calculations of the means, medians, modes, standard deviations, measures of kurtosis and skewness.
2. Hypothesis No. 1 and Hypothesis No. 2 above were tested, calculating the difference between pre- and post-test scores on each of the appropriate measures.
3. In follow-up to the pre-and post-test difference analyses, correlational analyses were carried out to determine what variables were correlated with the change that occurred as the result of project treatment. These analyses tested the null hypothesis.
4. Signigicant results were observed in analyses No. 2 and No. 3 above, thus regression analysis will be performed to determine the predictive relationships among the variables.

Outcomes

The effectiveness of this project was assessed with various indicators, including achievement and affective test data, behavioral observations of the child in the classroom, parents' and teachers' ratings of the child's behavior, and individual, student-based behavioral objectives for academic and social productions. Limitations resulted from the small sample size and the lack of a control group. The present data must be evaluated with these limitations in mind.

Student Outcomes

Descriptive statistics for all pre-and post-program measures were studied. The lack of normality reflected by the skewness and kurtosis statistics relects the small sample size and the nature of the population of children served by this project. Both descriptive and inferential statistics were used to evaluate change in the dependent measures of the evaluation design and to examine the interrelationships among variables. Based on an analysis of the pre- and post-test achievement measures, significant gains were noted in the areas of Reading Recognition, General Knowldge, and Total Achievement. A significant trend toward external locus of control of behavior was observed. This trend was expected in terms of the highly structured nature of the program, its short term duration, and the clinically diagnosed incapability of these children to internalize behavioral controls.

The only significant change in observed on-task behavior was an increase in the proportion of time spent listening to other students (i.e., a positive group participation in a learning task). This may account for the lack of a significant increase in total on-task performance, but may also indicate that the observational measures used need to be revised and made more specific. There was also significant increase in the classroom ratings of observed positive behaviors. The two measures, when taken together, suggest a significant improvement in positive social behaviors within the classroom. The lack of increase in on-task behaviors does not necessarily reflect a program weakness due to: 1) the dual emphasis of the program on both academic and social objectives; and 2) the limitations of time, preventing validation of the observational instruments developed within th project year.

There was a low proportion of disruptive behaviors encountered in the highly structured, small classroom setting. Thus it is understandable that great reductions in this type of behavior were not observed.

Several significant differences between pre- and post-program teacher ratings on the Burks' Behavior Rating Scale were noted on the subscales measuring: Poor Coordination, Poor Attention, Poor Sense of Identity, Poor Anger Control, Excessive Aggressiveness, Excessive Resistance, and Poor Social Conformity. Results indicate a significant decrease in these dimensions of behavior while the children in the project became less impulsive and more able to attend and respond appropriately to social and educational demands.

The results of the Burks' Behavior Rating Scale are contained in the text of the Project Summary.

Students gained an average of 2.81 months or more in all areas of the Peabody Individual Achievement Test calculated by the Age Equivalent scores. Overall, total achievement increased by more than one year for the students in the project, with 15 months' gain noted in general knowledge.

To investigate the prediction of achievement scores and attained objectives by various measures used in the project, several stepwise multiple regression analyses were performed. Although the sample size was much too small to produce reliable results, the findings did suggest relationships that deserve to be investigated in detail in future programs.

There was an expected predictive relationship between IQ and achievment scores. Results show that a student's IQ is unrelated to the number of social objectives he is able to achieve. Preliminary analysis suggests that subscales from the Burks' Behavior Rating Scale might be combined to form new variables which would be highly predictive of student behavior and performance.

Hypothesis 1 for this investigation was supported since several significant differences between pre- and post-program scores on the Burks' Behavior Rating Scale were observed. Significant decreases in off-task observational ratings were not observed, suggesting need for refinement of the instrument and/or that this area of behavior may not be an important indicator for learning.

Hypothesis 2 for this investigation received partial support since significant gains in achievement and general classroom behavior were observed.

The Null Hypothesis was rejected because several significant correlation coefficients were obtained.

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DATA COLLECTION SHEET

NAME_____ I.D._____

AGE_____ PARENT GROUP_____

Piat Scores:

	Pre:	Post:
Math	____	____
Reading Recognition	____	____
Reading Comprehension	____	____
Spelling	____	____
General Knowledge	____	____
Total	____	____

Inventories:

	Pre:	Post:
I-E	____	____
SEI	____	____
MAS	____	____

	A	S	T
Objectives:	____	____	____

Observational Data:

	Pre:	Post:
On-Task		
Task Response	____	____
Listening to Teacher	____	____
Listening to Others	____	____
Gathering Task Materials	____	____
Total On-Task	____	____
General Classroom Rating	____	____

WISC IQ's: T____ V____ P____

	Pre:	Post:
Off-Task		
Physical Aggression	____	____
Verbal Aggression	____	____
Self-Stimulation	____	____
Noise-Making	____	____
Distracted by Others	____	____
Total Off-Task	____	____

Data Collection Sheet
Page Two

NAME _____

Burk Scores:

	Teacher's Pre:	Teacher's Post:	Parent's Pre:	Parent's Post:
Excessive Self-Blame	____	____	____	____
Excessive Anxiety	____	____	____	____
Excessive Withdrawal	____	____	____	____
Excessive Dependency	____	____	____	____
Poor Ego Strength	____	____	____	____
Poor Physical Strength	____	____	____	____
Poor Coordination	____	____	____	____
Poor Intellectuality	____	____	____	____
Poor Academics	____	____	____	____
Poor Attention	____	____	____	____
Poor Impulse Control	____	____	____	____
Poor Reality Contact	____	____	____	____
Poor Sense of Identity	____	____	____	____
Excessive Suffering	____	____	____	____
Poor Anger Control	____	____	____	____
Excessive Sense of Persecution	____	____	____	____
Excessive Sexuality	____	____	____	____
Excessive Aggressiveness	____	____	____	____
Excessive Resistance	____	____	____	____
Poor Social Conformity	____	____	____	____